NAIADITES ANGULATUS DAWSON, 1860 (CLASS LAMELLIBRANCHIA): REQUEST FOR A RULING ON THE INTERPRETATION OF THE NOMINAL SPECIES IN ACCORDANCE WITH ACCUSTOMED USAGE. Z.N.(S.) 1525

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The purpose of the present application is to stabilise the interpretation of the nominal species *Naiadites angulata* (*sic* ; *Naiadites* is masculine) Dawson, 1860 in the sense in which it has been used for at least the last sixty-five years. The case is one in which it is impossible to identify the original type-material ; it is equally impossible to demonstrate its loss or destruction sufficiently to justify the designation of a neotype. This species is diagnostic of the Canso Group of the Upper Carboniferous rocks of Nova Scotia where it is abundant in certain regions. It is similar to species from the Pictou Group of the Upper Carboniferous of Nova Scotia and to species from the Ammanian of Great Britain. It is therefore desirable to stabilise the interpretation of *Naiadites angulatus* Dawson in order to facilitate the identification of faunas of the Canso Group and the comparison of homotaxially equivalent faunas in Europe. The facts of the case are stated below.

2. J. W. Dawson (1860, *Supplement to 'Acadian Geology'* : 45) proposed the name *Naiadites angulata* for a species of his new genus *Naiadites*. A description was given as follows : " Similar in general form and proportions to No. 4 [*N. arenaceus*], but with more prominent beaks, a straight hinge-line and an undefined ridge running backward from the umbo, and causing the posterior extremity to present an angular outline. Lower Coal Formation at Parrsborough ". [Nova Scotia.]

Upper Carboniferous rocks at Parrsborough are now referred to the Canso and Riversdale Groups. Field-collecting by myself and W. A. Bell of the Geological Survey of Canada shows that the lamellibranch faunas of these two Groups are distinct, the former being characterised by the genus *Carbonicola* (?), whilst the higher Riversdale Group contains *Naiadites* and *Curvirimula* (Bell, 1944, *Geol. Surv. Canada, Mem.* 238 : 23, 25). It is probable therefore, that the original material of *Naiadites angulatus* Dawson came from the Canso Group at Parrsborough rather than from the Riversdale Group.

3. Dawson (1868, *Acadian Geology* : 204–205, text-fig. 46) repeated the original description and added a figure.

4. Wheelton Hind (1894, *Quart. J. Geol. Soc. Lond.* **50** : 441, Pl. XX, fig. 14) figured as (*Carbonicola* (McCoy)) / (*Anthracosia* (King)) } *angulata* (Dawson) a fossil sent, with others, to him by Dawson for comment. Hind's figure certainly represents Redpath, Museum specimen No. 3132 from Mabou, Cape Breton Island, Nova Scotia, where the Canso Group is exposed, because the extra fossil included in the figure can be recognised in the matrix of No. 3132.

5. In the " Explanation of Plate XX " Hind (1894) gave the Coal Measures

at South Joggins as the horizon and locality of all the shells he illustrated, although four of those he figured did not come from that locality. He also indicated that five were returned to Dawson, these now being located in the Redpath Museum. Hind stated that the remainder, presumably including that figured by himself as *Carbonicola angulata,* were presented to him by Dawson. This reference of Hind's is the only specific record of the transfer of Coal Measure shells between Montreal and London.

6. From (5) it seems that Hind did not always accurately record the localities of the fossils he figured, and likewise it is possible that he omitted to note the return to Dawson of the specimen he figured as Pl. XX, fig. 14 (Redpath Museum No. 3132). There is no record of a *figured* specimen of *Carbonicola angulata* (Dawson) in the British Museum, where the *only* fossil labelled *C. angulata* from Nova Scotia is imperfectly exposed. There are no fossils labelled *Anthracosia angulata* (Dawson).

7. The only specimen labelled *C. angulata* (Dawson) in the Redpath Museum is No. 3132. This is the only specimen that was referred to *C. angulata* (Dawson) by Hind (and presumptively by Dawson).

8. Redpath Museum specimen No. 3132 cannot certainly be recognised as the fossil figured by Dawson in 1868 as *Naiadites angulata* : his drawings are never accurate, but it is possible that his figure represents R.M.3132. However, according to the label it came from Mabou, and not from the locality cited in the original description.

9. Although, *fide* the label, it did not come from the type-locality, R.M.3132 was almost certainly identified by Dawson, and was possibly figured by him in 1868. It has been on display in the Redpath Museum for many years as the type of *Carbonicola angulata* (Dawson).

10. I am at present engaged on the revision of the North American Upper Carboniferous non-marine Lamellibranchia and I wish to interpret *Naiadites angulatus* Dawson in accordance with accustomed usage.

11. I therefore ask the International Commission :

(1) to give a ruling that the nominal species *Naiadites angulatus* Dawson, 1860, is to be interpreted by reference to specimen No. 3132 in the Redpath Museum, Montreal, Canada ;

(2) to place the specific name *angulatus* Dawson (as published in the binomen *Naiadites angulata* (*sic.*) (now referred to the genus *Carbonicola* (?) McCoy, 1855) on the Official List of Specific Names in Zoology.